RAJ KUMAR MANALA

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Summary

Big Data Engineer with proficient experience in optimizing data workflows and developing scalable data models using Azure Databricks and Cosmos DB. - Led the optimization of 150+ data processing workflows, improving efficiency by 70%. - Automated infrastructure deployments, reducing deployment time by 90%, utilizing technologies like Terraform. - Enhanced data storage solutions achieving an 80% improvement in query response times. Skillfully translates complex data into actionable insights, aspiring to leverage extensive technical acumen to support innovative data analytics solutions during the internship.

Skills

Technical Skills: Python, SQL, Pyspark, SparkSQL, Hadoop, MapReduce, Hive, HTML, CSS, Databricks, AWS, Azure Stack - Synapse Analytics, Purview, Data Factory and pipelines, Key Vault, Microsoft Fabric, Azure Networking, ARM templates, Cosmos DB, PostgreSQL, MySQL, SQLite3, Microsoft SQL Server, MongoDB DB, Dynamo DB, Oracle, Power BI, JIRA, Data Lake, Postman & REST APIs, SSIS, Visual Studio, Pandas, Git, CI/CD, Airbyte, Kafka, Airflow, Rivety, Delta Lake, Chat GPT, Tableau, Terraform, MongoDB Atlas, Snowflake, Azure, Data transformation, Data pipelines

Certifications: Azure Data Engineer, Power BI Data Analyst, Databricks Data Engineer, Databricks Spark 3.0 Developer, MongoDB Developer, MongoDB Data Modeler, HashiCorp Terraform Associate

Work Experience

Concordia University Chicago — River Forest, Illinois
Technical Support Specialist — Jul 2024 - Present

- Efficiently deployed and maintained computing resources, integrating troubleshooting methods akin to data transformation processes to optimize technological assets.
- Imaged and configured Dell desktops and laptops with BIOS settings and iMacs with specific software updates. Conducted installations comparable to ETL processes to update environments while maintaining compliance with university protocols.
- Executed the installation and configuration of Windows 11 on computer labs, ensuring compatibility and readiness, similar to preparing data platforms for later analytical tasks.

Concordia University Chicago — River Forest, Illinois
CougarNet Helpdesk Specialist — Aug 2023 - Jul 2024

- Resolved complex technical problems, applying diagnostic approaches that parallel detailed data analysis and anomaly detection.
- Supported and enhanced Concordia Connect and CUC's administrative software by systematically addressing technical issues, demonstrating cross-functional attachment akin to consulting with data science teams for user requirements.

Mindtree & LTI Mindtree - Microsoft Vender — Hyderabad, India
Big Data Engineer - Azure Rapid Response Team — Apr 2020 - Aug 2023

- Streamlined 150+ data processing workflows by leveraging PySpark within Azure Databricks, and Azure Data Factory thereby optimizing data processing efficiency by 70%.
- Analyzed ETL process failures, data anomalies, and data warehousing issues identified by 100+ developers and 700+ end-users.
- Identified means to reduce and control expenses by conducting cost and contract performance analysis and improving resource allocation by 40%.
- Supported 50+ product managers and software engineers in analyzing and deploying augmented cloud infrastructure, while adhering to the project scope and budget.
- Implemented Infrastructure as Code (IaC) methodologies leveraging tools such as Azure Resource Manager and Terraform, enabling automated deployments and significantly reducing time and effort by 90%.
- Established a hierarchical staging area structure for raw data while implementing SCD Type 1 & Type 2 to ensure accurate historical data in the semantic layer for reporting and historical data preservation.
- Designed and implemented scalable and high-performance data models using Azure Cosmos DB, resulting in a 80% improvement in query response times and a 20% reduction in storage costs compared to previous database solutions.
- Conducted security assessments and made recommendations for disaster recovery, network appliances, clusters and directory services security.

Education

Concordia University Chicago
Master of Science, Computer and Information Systems — Aug 2023 - May 2025

- Achievements: GPA: 3.7/4.0

Projects

Data Engineering Project
- Implemented a complete data engineering workflow using Azure services.
- Ingested data from an on-premises MS SQL Server into Azure Data Lake Gen2 using Azure Data Factory.
- Followed transformations in Azure Databricks across bronze, silver, and gold layers.
- Stored transformed data in Azure Synapse Analytics and utilized Power BI for data visualization and reporting.

Sales Data Analytics
- Sales data was imported into SQL Server and cleansed using T-SQL and Power Query, applying filters, removing duplicates, and aligning data types.
- A star schema was implemented to optimize data relationships, connecting fact and dimension tables for efficient analysis.
- Created interactive Power BI dashboards (Sales Overview, Customer Details, Product Details) to provide insights into key performance metrics and trends.
- Developed DAX measures for calculating sales vs. budget metrics, enabling real-time analysis and data-driven decision-making.